

TESTING OF FORCE MAINS AND PROCESS PIPING:

Description: Apply a hydrostatic pressure test and a leakage test to all force mains and process piping as specified herein and in accordance with AWWA C600.

Pressure Test: After the pipe has been installed and partially backfilled (if applicable) subject all newly installed pipe, or any valved section of it, unless otherwise specified, to a hydrostatic pressure test equal to 1-1/2 times the maximum line working pressure (50% over the working pressure) but not less than 5.0 psig. The duration of each pressure test shall be at least 60 minutes.

Slowly fill each valved section of pipe with water to the specified test pressure, measured at the point of lowest elevation, by means of a pump connected to the pipe in a satisfactory manner.

Before applying the full test pressure, expel all air from the pipe. To accomplish this, make taps, if necessary, at the point of the highest elevation, and afterward tightly plug. Corporation cocks may be used.

Carefully examine all exposed pipes, glands, fittings, valves, hydrants, joints, etc., during the pressure test. Where the joints are made with joint compound, re-caulk all such joints showing visible leaks until tight. Remove and replace all cracked or defective pipe, glands, fittings, valves, or hydrants discovered under this pressure test, and repeat the test until the installation is satisfactory to the Resident Representative.

Leakage is defined as the quantity of water that must be supplied into the newly installed pipe line, or any valved section thereof, necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled.

No installation using mechanical, push-on, bell and spigot or flanged joints will be accepted if the leakage is greater than L as determined by the formula:

$$L = \frac{S D \sqrt{P}}{133,200}$$

L = the allowable leakage in gallons per hour

S = the length of line being tested

D = diameter of pipe, in inches

P = the average test pressure in pounds per square inch gauge

Method of Payment Payment to be included in the price of the various pipe, no separate payment will be made.